A Project's Tale: Transitioning From SW-CMM to CMMI-SE/SW

CMMI Technology Conference & User Group
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Transitioning to CMMI Track

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Topics

- **The Challenge**
- **Our Strategy**
- **Initial Steps**
- **Lessons Learned**

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The Challenge: Bring an Existing Project up to CMMI Level 3

- **The entire organization was transitioning from CMM Level 3 to CMMI Level 3**
  - New command media
  - Periodic redirection
  - Fluctuating success criteria
- **The project had other concerns**
  - Performance
  - Shrinking delivery schedules

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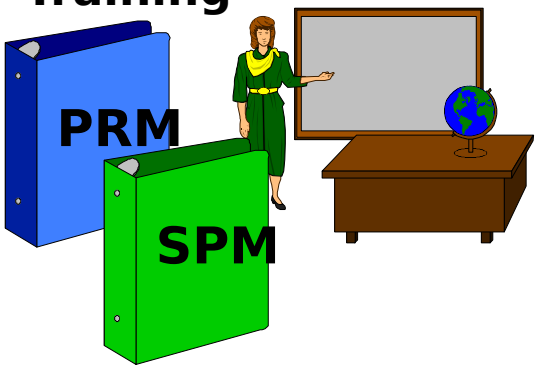
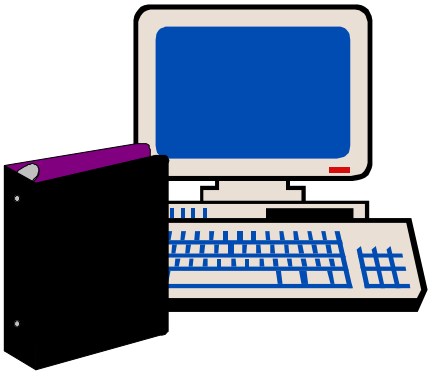
The Organizational Environment

Enterprise-Wide Institutionalization
- **Policy & Requirements Manual**
- **Standard Process Manual**
- **Training**



Quantitatively Measur
- **Metrics Manual**
- **Measurement reposit**



Projects

Six Sigma Teams
- **DMAIC / DFSS**
- **Tools & methods**

CMMI Assessments
- **Self-Assessment Tool**
- **rmal**
- **nts**

CMMI/Six Sigma Synergy
- **Project Reviews/Summits**
- **Integrated strategies**

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Our Strategy

- **Map the Path from CMM to CMMI**
- **Build on Proven Project Management Practices**
- **Use Change Management Tools**
- **Extend Software Development Activities to include Systems Engineering**
- **Keep Score**

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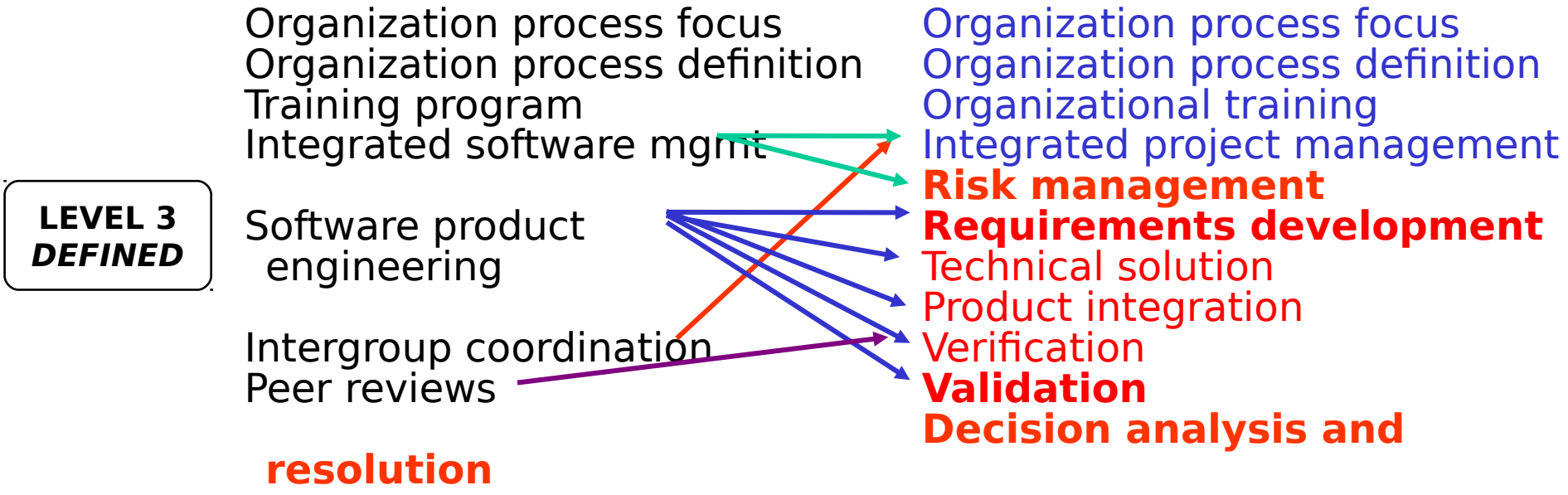
Map the Path from CMM to CMMI



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Build on Proven Project Management Practices

- **Establish and maintain a plan**
  - If you don't know where you are going, you will probably end up where you don't want to be
- **Engage relevant stakeholders**
  - Instituted weekly coordination working group
- **Track progress**
  - Schedule, task list tracked to closure
- **Integrated Management**
  - Software Quality Assurance is your friend
- **Risk Management**

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Use Change Management Tools

- **Maintain senior management sponsorships**
- **Work with early adopters**
- **Use staff and all hands meetings as training opportunities**
- **Let group leaders be your change agents**
- **Show constant progress**
- **Celebrate small victories**

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Extend Software Development Activities to include Systems Engineering

- **Emphasize and build interfaces to Program and Software Systems Engineering groups**
  - Program Systems Engineering acknowledged responsibility for requirements allocation and acceptance of software baselines
  - Software Systems Engineering maintained requirements evidence books
  - Project documented transfer of artifacts and completion of milestones
- **Encourage all trade studies to use the DAR methodology**
- **View the project as a system, not a collection of components**

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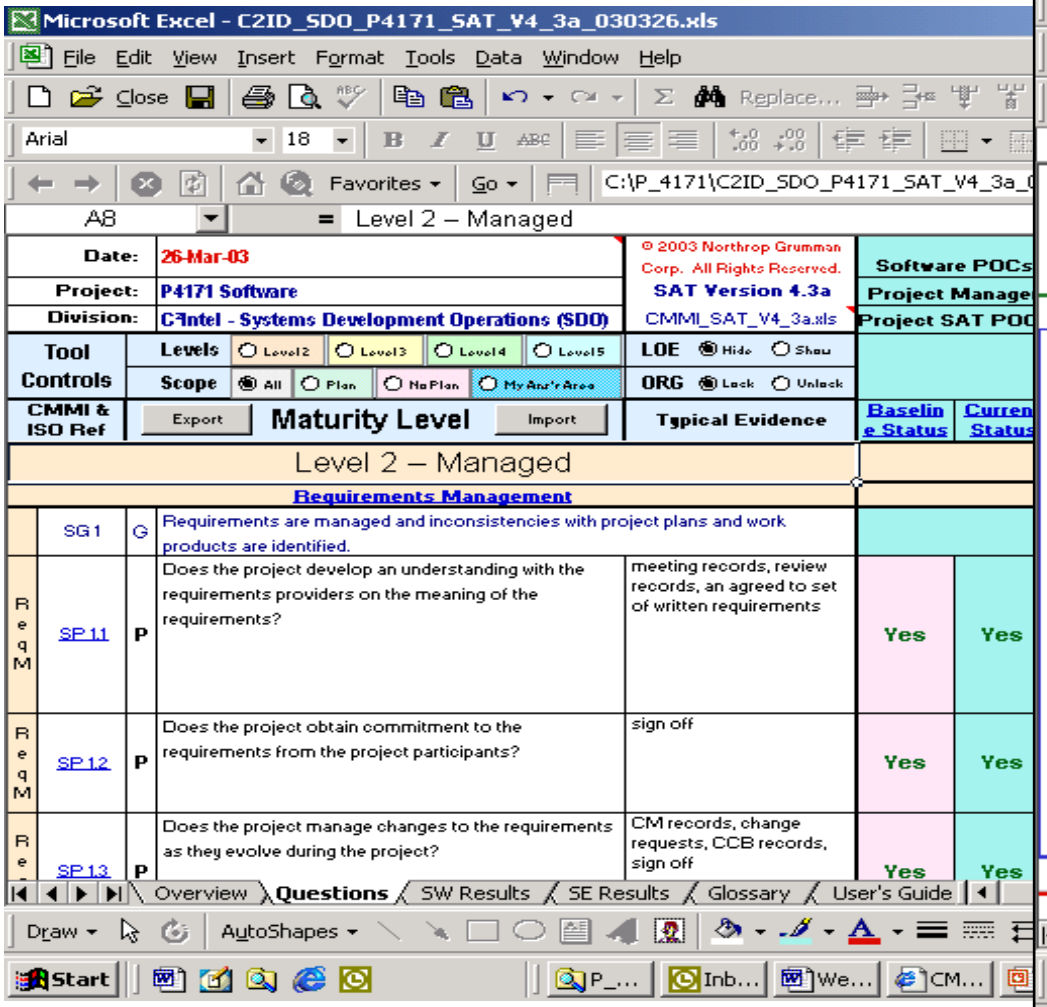
Keep Score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File Edit View Insert Format Tools Data Window Help
A8 = Level 2 – Managed
Date: 26-Mar-03
Project: P4171 Software
Division: C3Intel - Systems Development Operations (SDO)
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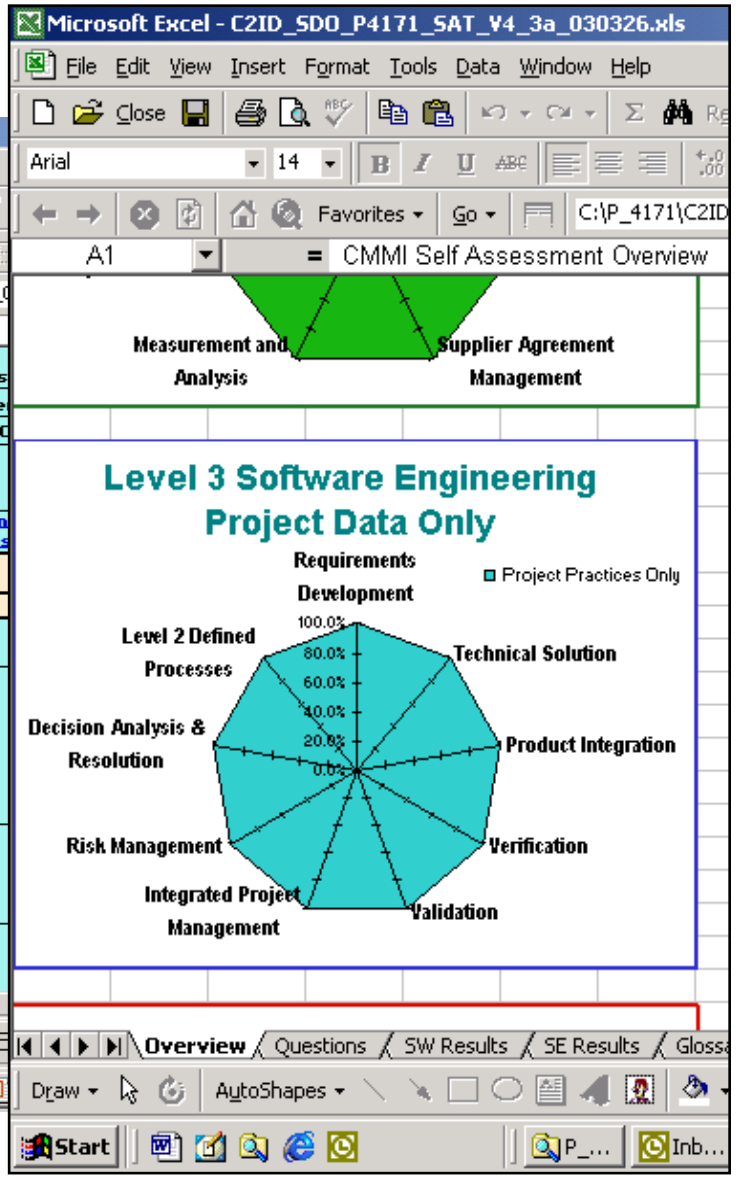
SAT Version 4.3a
CMMI_SAT_V4_3a.xls
Tool Controls
Levels Level2 Level3 Level4 Level5
Scope All Plan Na Plan My Area
LOE Hide Show
ORG Lock Unlock
CMMI & ISO Ref
Export
Maturity Level
Import
Typical Evidence
Baseline Status
Current Status
Level 2 – Managed
Requirements Management
SG 1 G Requirements are managed and inconsistencies with project plans and work products are identified.
ReqM SP 1.1 P Does the project develop an understanding with the requirements providers on the meaning of the requirements? meeting records, review records, an agreed to set of written requirements Yes Yes
ReqM SP 1.2 P Does the project obtain commitment to the requirements from the project participants? sign off Yes Yes
Re SP 1.3 P Does the project manage changes to the requirements as they evolve during the project? CM records, change requests, CCB records, sign off Yes Yes
Overview Questions SW Results SE Results Glossary User's Guide
Draw AutoShapes
Start



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Initial Steps

- **Identified points of contact for all CMMI process areas**
- **Developed a schedule with a simple format**
- **Held weekly coordination meeting**
- **Started the hard stuff first (requirements, project planning)**
- **Defined project product development life cycle model**
- **Released initial updated program plans/processes**

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Lessons Learned - 1

- **Process group cannot do it all**
  - Flow down of information and training essential to implementation
- **Take full advantage of Organizational resources**
  - Presentations by Process Assessment Organization lead clarified principles and showed top management commitment
- **Dig Early and Often**
  - Appeal to project people to save evidence - especially emails
  - Need to document verbal orders
- **Training is Essential**

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Lessons Learned - 2

- **Timelines are appropriate for communicating expectations of urgency, but they must be realistic**
  - Identifying the gaps and adjust for changing strategy
  - Allow adequate time to create, review and update documents, evidence notebooks, train participants, audit products and processes
  - Do peer reviews, including an informal appraisal
- **Address resistance to change**
  - “I thought the organization did that.”
  - “Our customer won’t let us do that.”
  - “Why aren’t these projects included in the appraisal?”
  - “I want to do CMMI – I just don’t want to change our process.”

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Questions?